

AMENDMENTS TO THE CLAIMS:

1. (currently amended) A skin treatment method comprising applying an effective amount of electromagnetic radiation to a skin surface of an individual to at least partially prevent, reverse, or inhibit damage to the skin caused by exposure to a source of Xray or ultraviolet radiation, the applying of said electromagnetic radiation to said skin surface being effectuated on at least one occasion prior to, during or after the exposure of the individual to the source of Xray or ultraviolet radiation, the applying of said electromagnetic radiation to said skin surface being effectuated in the absence of any visible Xray or ultraviolet radiation damage to said skin surface,

the applying of said electromagnetic radiation to said skin surface being effectuated on multiple occasions each in conjunction with an exposure of the individual to Xray or ultraviolet radiation,

each application of said electromagnetic radiation to said skin surface being effectuated within a predetermined interval of a respective exposure of the individual to Xray or ultraviolet radiation.

2. The method defined in claim 1 wherein the applying of said electromagnetic radiation includes:

generating a predetermined number of pulses of electromagnetic radiation each having a predetermined electromagnetic spectrum; and

directing said pulses of electromagnetic radiation towards said skin surface, said pulses having a total energy predetermined to reduce Xray or ultraviolet radiation damage to the tissues of said skin surface.

3. The method defined in claim 2 wherein said number of pulses is greater than one, said pulses have an inter-pulse interval between approximately 1 msec and 500 msec, said total energy is between approximately 0.01 Joule and approximately 200 Joules of energy per square centimeter of said skin surface, and said pulse duration is between about 1 msec and 2 sec.

4. The method defined in claim 3 wherein said pulse duration is between about 1 msec and 100 msec.

5. The method defined in claim 3 wherein said total energy is between approximately 20 Joules and approximately 90 Joules of energy per square centimeter of said skin surface.

6. The method defined in claim 5 wherein said pulses are applied to said skin surface as a plurality of pulse packets, each of said packets having an inter-pulse interval between approximately 1 msec and 500 msec, said total energy being distributed over said pulse packets, said pulse duration being between about 1 msec and 2 sec for each of said packets, said packets being temporally spaced from each other by an inter-packet interval of between about 0.1 sec and twenty minutes.

7. The method defined in claim 2 wherein the number of pulses is two, the pulse duration is about 5.8 msec, the interpulse interval is approximately 20 msec, and the total energy applied is between about 20 Joules per square centimeter of said skin surface and about 90 Joules per square centimeter of said skin surface.

8. The method defined in claim 2 wherein the number of pulses is one, the pulse duration is between about 18 msec and 25 msec, and the total energy applied is between about 20 Joules per square centimeter of said skin surface and about 90 Joules per square centimeter of said skin surface.

9. The method defined in claim 2 wherein the electromagnetic radiation of said pulses is incoherent and wherein said spectrum includes wavelengths between about 400 nm and 1200 nm.

10. (canceled)

11. (canceled)

12. (currently amended) ~~The method defined in claim 1 wherein~~ A skin treatment method comprising applying an effective amount of electromagnetic radiation to a skin surface of an individual to at least partially prevent, reverse, or inhibit damage to the skin caused by exposure to a source of Xray or ultraviolet radiation, the applying of said electromagnetic radiation to said skin surface being effectuated on at least one occasion prior to, during or after the exposure of the individual to the source of Xray or ultraviolet radiation, the applying of said electromagnetic radiation to said skin surface being effectuated in the absence of any visible Xray or ultraviolet radiation damage to said skin surface,

the applying of said electromagnetic radiation to said skin surface ~~[[is]]~~ being effectuated within a predetermined interval prior to the exposure of the individual to Xray or ultraviolet radiation.

13. (original) The method defined in claim 12 wherein predetermined interval is less than about 24 hours.

14. (currently amended) ~~The method defined in claim 1 wherein~~ A skin treatment method comprising applying an effective amount of electromagnetic radiation to a skin surface of an individual to at least partially prevent, reverse, or inhibit damage to the skin caused by exposure to a source of Xray or ultraviolet radiation, the applying of said electromagnetic radiation to said skin surface being effectuated on at least one occasion prior to, during or after the exposure of the individual to the source of Xray or ultraviolet radiation, the applying of said electromagnetic radiation to said skin surface being effectuated in the absence of any visible Xray or ultraviolet radiation damage to said skin surface,

the applying of said electromagnetic radiation to said skin surface ~~[[is]]~~ being effectuated within a predetermined interval after the exposure of the individual to Xray or ultraviolet radiation.

15. (original) The method defined in claim 14 wherein said predetermined interval is less than approximately 24 hours.

16. (original) The method defined in claim 1 wherein the electromagnetic radiation applied to said skin surface has a wavelength absorbable by an endogenous chromophore in tissues along said skin surface.

17. (original) The method defined in claim 16 wherein the endogenous chromophore is melanin.

18. (currently amended) ~~The method defined in claim 1 wherein~~ A skin treatment method comprising applying an effective amount of electromagnetic radiation to a skin surface of an individual to at least partially prevent, reverse, or inhibit damage to the skin caused by exposure to a source of Xray or ultraviolet radiation, the applying of said electromagnetic radiation to said skin surface being effectuated on at least one occasion prior to, during or after the exposure of the individual to the source of Xray or ultraviolet radiation, the applying of said electromagnetic radiation to said skin surface being effectuated in the absence of any visible Xray or ultraviolet radiation damage to said skin surface,

the applying of said electromagnetic radiation to said skin surface ~~[[is]]~~ being carried out on multiple occasions, at least one of said occasions being further removed in time than at least another of said occasions from the exposure of the individual to Xray or ultraviolet radiation.

19. (original) The method defined in claim 18 wherein said occasions are regularly spaced in time from one another.

20. (canceled)

21. (canceled)

22. (original) The method defined in claim 1, further comprising applying a marker film to said skin surface to indicate that said electromagnetic radiation has been applied to said skin surface.

23. (original) The method defined in claim 22 wherein said marker film includes a visually detectable pigment.

24. (currently amended) ~~The method defined in claim 1 wherein~~ A skin treatment method comprising applying an effective amount of electromagnetic radiation to a skin surface of an individual to at least partially prevent, reverse, or inhibit damage to the skin caused by exposure to a source of Xray or ultraviolet radiation, the applying of said electromagnetic radiation to said skin surface being effectuated on at least one occasion prior to, during or after the exposure of the individual to the source of Xray or ultraviolet radiation, the applying of said electromagnetic radiation to said skin surface being effectuated in the absence of any visible Xray or ultraviolet radiation damage to said skin surface,

the applying of said electromagnetic radiation to said skin surface ~~[[is]]~~ being effectuated during the exposure of the individual to Xray or ultraviolet radiation.

25. (original) The method defined in claim 1, further comprising providing an exogenous chromophore in tissues along said skin surface prior to the applying of said electromagnetic radiation to said skin surface.

26. (currently amended) The method defined in claim ~~[[1]]~~ 25 wherein said exogenous chromophore is porphyrin.

27. (original) The method defined in claim 1, further comprising transmitting ultrasound energy into biological tissues along said skin surface prior to, during or after the applying of said electromagnetic radiation to said skin surface.

28. (original) The method defined in claim 1, further comprising applying a magnetic field to biological tissues along said skin surface prior to, during or after the applying of said electromagnetic radiation to said skin surface.

29. (currently amended) A prophylactic skin treatment method comprising:  
generating a predetermined number of pulses of electromagnetic radiation each having a predetermined electromagnetic spectrum;  
applying said pulses of electromagnetic radiation to an individual's skin surface ~~with no visible X-ray or ultraviolet radiation damage~~, said pulses having at least one predetermined pulse duration, and a predetermined total energy;  
exposing the individual to X-ray or ultraviolet radiation, the exposing of said individual to X-ray or ultraviolet radiation occurring within a predetermined period of time of the applying of said pulses to said skin surface; and  
at least in part owing to the applying of said pulses to said skin surface, reducing or preventing damage to the tissues of said skin surface arising from the exposing of said individual to X-ray or ultraviolet radiation.

30. (canceled)

31. (currently amended) The method defined in claim [[30]] 29 wherein said period of time is approximately 24 hours.

32. (original) The method defined in claim 31 wherein the applying of said pulses to said skin surface is effectuated in multiple sessions spaced by intervals of greater than five minutes.

33. (original) The method defined in claim 32 wherein the applying of said electromagnetic radiation includes, in each of said sessions:

generating a predetermined number of radiation pulses each having a predetermined electromagnetic spectrum; and

directing said radiation pulses towards said skin surface, said radiation pulses having at least one pulse duration and a total energy all predetermined to reduce Xray or ultraviolet radiation damage to the tissues of said skin surface.

34. (original) The method defined in claim 33 wherein said number of said radiation pulses is greater than one, said radiation pulses having an inter-pulse interval between approximately 1 msec and 500 msec, said total energy is between approximately 0.01 Joule and approximately 200 Joules of energy per square centimeter of said skin surface, said pulse duration is between about 1 msec and 2 sec,

35. (original) The method defined in claim 34 wherein said pulse duration is between about 1 msec and 100 msec, said total energy is between approximately 20 Joules and approximately 90 Joules of energy per square centimeter of said skin surface.

36. (original) The method defined in claim 34 wherein the number of said radiation pulses is two, the pulse duration is about 5.8 msec, the interpulse interval is approximately 20 msec, and the total energy applied is between about 20 Joules per square centimeter of said skin surface and about 90 Joules per square centimeter of said skin surface.

37. (currently amended) The method defined in claim ~~[[34]]~~ 33 wherein the number of said radiation pulses is one, the pulse duration is between about 18 msec and 25 msec, and the total energy applied is between about 20 Joules per square centimeter of said skin surface and about 90 Joules per square centimeter of said skin surface.

38. (original) The method defined in claim 29, further comprising applying a marker film to said skin surface to indicate that said pulses of electromagnetic radiation have been applied to said skin surface.

39. (original) The method defined in claim 38 wherein said marker film includes a visually detectable pigment.

40. (original) The method defined in claim 29 wherein said predetermined number of pulses is one.

41-57. (canceled)

58. (currently amended) A light treatment method comprising:  
generating light of a selected spectral composition;

directing said light towards a skin surface; [[and]]

applying a marker film to said skin surface to indicate that the light has been applied to said skin surface; and

operating a sensor to automatically detect the presence of said marker film on said skin surface.

59. (original) The method defined in claim 58 wherein said marker film includes a visible pigment composition.

60-66. (canceled)